
CHANGING DEMOGRAPHICS

AN OPPORTUNITY NOT TO BE MISSED

Future practitioners are key to new president's vision of a more inclusive, nimble and sophisticated regulatory regime.

By Michael Mastromatteo





The Ontario engineering regulator's newest president is optimistic the profession can chart a course for a more inclusive and diverse membership, while better accommodating the next generation of practitioners.

Bob Dony, PhD, P.Eng., FEC, took over the reigns from outgoing president George Comrie, P.Eng., FEC, on April 22 at PEO's annual general meeting in Thunder Bay. The new president is as unassuming as he is determined to embrace a culture of change in helping a new cohort of engineering graduates make their mark on a rapidly evolving profession.

It's understandable that Dony, a life-long academic, would focus on engineering education as a hallmark of his volunteer work at PEO. Dony comes to the president's office after more than 20 years as a PEO volunteer. Since 1997, he has served on the faculty of engineering at the University of Guelph, and he is now on a research and study break from the university as he serves his term as PEO president.

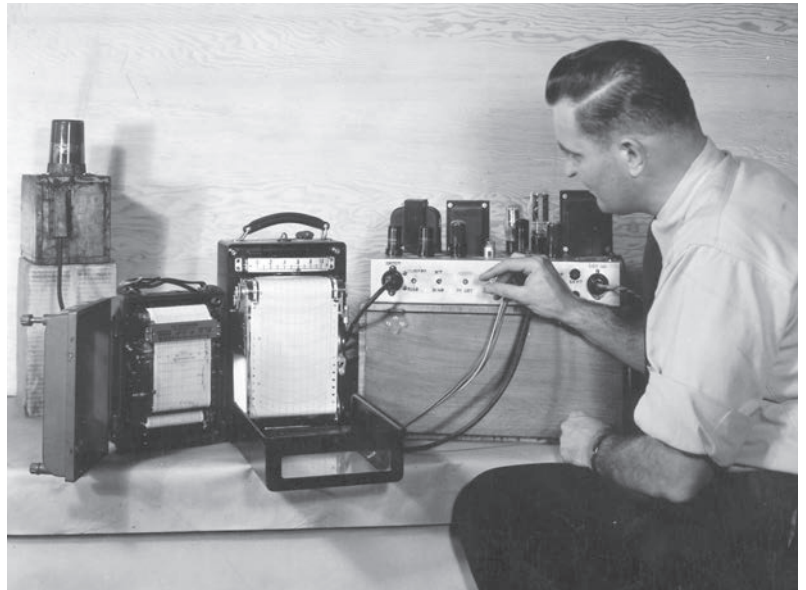
Dony obtained his P.Eng. in 1989 and was shortly thereafter encouraged by former PEO president Walter Bilanski, PhD, P.Eng., FEC, to become involved with the regulator's Emerging Disciplines Task Force. He has since served as a member and chair of both the Academic Requirements and Legislation committees, where he developed an even greater appreciation for some of the core objects of PEO's regulatory and licensing mandate. In 2012, he was first elected to PEO Council as a councillor-at-large.

In some ways, the Dony family experience is akin to an engineering incubator. Dony's father, Bill, a former employee with Ontario Hydro's research division, was one of the founding members of the Ontario Association of Certified Engineering Technicians and Technologists (OACETT), which for 55 years has served as a valued partner in the engineering-technologist working relationship.

"It was my father's job at Ontario Hydro to make sure the engineers' designs work," Dony reflected recently. "It was an early example for me that teams of professionals have to come together to find success in a technical environment."

The Dony clan's history as an engineering test lab is extended by the current president's immediate family experience. After graduating with a master's degree from the University of Waterloo in systems design engineering in 1988—and becoming licensed by PEO three years later—Dony began his career with Imaging Research Inc. in St. Catharines.

He and his wife Lisa raised a family of two sons and a daughter, all three of whom have followed their father into the engineering profession. The oldest, daughter Lynn Dony, EIT,



The late Bill Dony, C.E.T., was a founding member of the Ontario Association of Certified Engineering Technicians and Technologists (OACETT) and an early influence on son Bob's career choice.

President Bob Dony (second from left) and his wife Lisa (middle) raised two sons and a daughter, all of whom followed Dony into the engineering profession: engineering student Greg (far left), Lynn, EIT (second from right), and John, EIT (far right).

is involved with autonomous vehicle development with General Motors at their new facility in Oshawa. She will soon move to a newer facility in Markham. Next is John Dony, EIT, who recently began work at GHD, an environmental engineering firm in Waterloo. The youngest Dony, Greg, has just finished his third year of studies at Western University and is registered with PEO as a student member.

The entire Dony family formed a cheering squad of sorts at the Thunder Bay annual general meeting, as the elder Dony accepted the ceremonial gavel of leadership from Past President Comrie.

Dony is understandably proud of his three adult children. He says he didn't urge them into engineering pursuits, but left it up to them to serve the public good by way of any profession.

"Our dad never pushed engineering as a career growing up," Lynn Dony told *Engineering Dimensions*. "We saw firsthand through both

ARMED WITH FAMILY EXPERIENCE AND NOW 20 YEARS' SERVICE AS A MEMBER OF THE FACULTY AT THE UNIVERSITY OF GUELPH'S SCHOOL OF ENGINEERING, DONY IS WELL POSITIONED TO CITE EDUCATION AND CURRICULUM ENHANCEMENT AS KEY POINTS OF HIS LEADERSHIP AT PEO.

our mom, who is a graduate of math at the University of Waterloo and a computer programmer, and our dad about successful careers in math and engineering. We always got support for bringing home design-and-build projects, and we were all good at math and science in school. It's not a surprise that we're all engineers, but there was never explicit pressure to enter it."

Lynn Dony studied biomedical and electrical engineering at McMaster University and graduated in 2012, and is completing the master of engineering program at the University of Guelph. "I chose these programs because I was drawn to the ability to help people through engineering," she adds. "Throughout my edu-

cation and career, I've always been drawn to projects that have a positive impact on society, and I think that seeing my dad's career influenced those decisions. His views on the future of engineering, especially in an academic sense, and its need to adapt to our new problems I'm sure has had a huge impact on our career paths. He has continuously emphasized making things better, learning new skills, and making data-driven decisions, even if that meant disrupting the way things have always been done."



Dony's research interests involve spending time in the university's sound booth, where he tests out algorithms for audio signal processing. His main application for this work is developing new noise reduction methods for hearing aids, among other applications.



Dony teaches students at the University of Guelph's School of Engineering. His emphasis on the future of the profession is a direct result of his full-time job as an engineering professor. He is determined to help the next generation of practitioners make their mark on a rapidly evolving profession.

ACCREDITATION CONCERNS

Armed with family experience and now 20 years' service as a member of the faculty at the University of Guelph's School of Engineering, Dony is well positioned to cite education and curriculum enhancement as key points of his leadership at PEO. Dony also has several years' experience as an Ontario representative to Engineers Canada's Canadian Engineering Accreditation Board (CEAB), which reviews engineering undergraduate programs and certifies new degree programs.

To help realize his educational priorities, Dony already convened a seminar with the Council of Ontario Deans of Engineering (CODE) in May to review accreditation and curriculum issues across the province's engineering undergraduate community (see p. 25).

"Since we, as a regulator, effectively use the accreditation product of Engineers Canada and the CEAB, I felt it's important for us to have a conversation with the deans, and I know full well by observing in the classroom that it's not the same classroom I went through," the new PEO president says. "So how can we make sure we maintain the same standards for engineering education (and) allow it to evolve to the reality of today?"

It's in keeping with the new president's views that engineering education, due to

Dony, seen here in his office at the university, is fully supportive of welcoming new leaders into the profession by way of PEO's recent term limits and succession planning initiatives. He says it is key to make sure fresh perspectives are brought into the organization.

emerging disciplines and other trends, cannot afford to stand pat. "[Engineering education] certainly is different than the one I entered when I graduated in 1986 with my degree in systems design engineering," Dony wrote in his first President's Message column ("Moving forward in a host of ways," *Engineering Dimensions*, May/June 2017, p. 6). "At that time, such a non-traditional program was very much the exception to the classical engineering disciplines of the day. Today, there are more than 100 differently named engineering programs in Canada that have been accredited by the CEAB. The old framework of discrete engineering disciplines is now simply obsolete."

Dony recognizes the irony in being an advocate for diversity and inclusiveness in the engineering profession as a white, middle-aged male practitioner. He made note of the situation in his annual meeting comments.

"While we are encouraging new voices to enter the conversation, we must make sure it is a diverse set that reflects not just our profession, but society as a whole," he told AGM delegates. "I am a middle-aged, white, cis-gendered straight male. I'm hardly a poster boy for such a diverse conversation. But this isn't a 'women's issue' or a 'minority issue'—this is an issue that we all must take ownership in, especially those of us in that median demographic that I am so visibly a member of."

AS A COMPLEMENT TO HIS DIVERSITY AND INCLUSIVITY EXPECTATIONS, DONY IS FULLY SUPPORTIVE OF THE ENGINEERING REGULATOR'S RECENT TERM LIMITS AND SUCCESSION PLANNING INITIATIVES.



To that end, Dony supports the Engineers Canada "30 by 30" initiative, which aims to raise the percentage of newly licensed female engineers to 30 per cent by the year 2030. In recent years that figure has hovered around the 10 per cent mark.

Furthermore, Dony hopes PEO Council and its pool of volunteers will also become more reflective of society in general. "If we're not reflecting the society that we are working on behalf of, it's very hard to claim legitimacy to the people of Ontario," Dony told *Engineering Dimensions*.

WELCOMING NEW LEADERS

As a complement to his diversity and inclusivity expectations, Dony is fully supportive of the engineering regulator's recent term limits and succession planning initiatives. While these studies will be presented to PEO Council in more detail over the summer, Dony believes it's incumbent on publicly-focused organizations like PEO to provide leadership development opportunities to members and volunteers.

"None of us are that important to the organization that if we are not part of it, it will come crashing down," Dony says as justification for leadership recruitment work. "We all have our contributions to make, but we can build in some things that help create opportunities for people—and that's what the succession planning and term

limits team is doing. It provides opportunities—by statute there is a vacancy created—which in turn provides an opportunity to somebody who may not have thought of it before.”

But while Dony is clearly focusing on education, leadership development and diversity as priorities for his presidential term, he is also attuned to regulatory refinement. His time as chair of the Legislation Committee, it seems, has left him with a keen appreciation of PEO’s very *raison d’être*. “That work puts into perspective our regulatory responsibilities,” Dony affirms. “That’s the reason we exist—we exist because of the *Professional Engineers Act*, and we are here to serve the public. The question remains: How do we do that in the best possible way?”

The Legislation Committee experience, in turn, has helped the new president understand the provincial government’s emphasis on evidence-based policy-making, especially as it comes to PEO looking to make future changes to the engineering act or its regulation-making ability. “As engineers, we should normally espouse evidence-based policy,” Dony says. “Today, we have to deliberately make the case for change, so it puts the onus on us to make sure we are deliberate with changes as we go forward, because sometimes in the past, we weren’t as deliberate.”

The new president is also concerned about the increasing government scrutiny on all self-regulating professions and on the constant expectations that associations operate with transparency and accountability. “I don’t want PEO to ever be in a position where we have to explain ourselves after the fact to the government,” Dony says. “I would like to be in a position where we are on the forefront.”

He takes some comfort for the expeditious way PEO has accommodated internationally educated applicants, but he cautions PEO against resting on its administrative laurels.

When Dony decided to run for president-elect in 2015, he spoke in his campaign material about the engineering profession at a crossroads. He suggested at the time that improved regulation is thwarted by “recycling” of issues not properly dealt with, and that problems around lack of engagement and low member interest in electoral matters continue to beset the regulator.



Dony, here with students in one of the labs at the University of Guelph, believes engineering educators should continue to have room to innovate and meet the challenges of today’s professional environment while also maintaining the technical rigour PEO requires as a regulator.

Nonetheless, Dony appears confident the profession retains the talent and commitment to move forward. In his annual meeting remarks, Dony emphasized “the collective wisdom” of the profession and its practitioners to make progress in overcoming stubborn obstacles. It’s evident he also reserves a special place for the next round of practitioners, including those still completing their education, to make a difference in the future. “As a self-governing profession with over 1000 volunteers across the province, I look forward to ‘crowd sourcing’ a path together to move this great profession of ours forward for the next generation of practitioners.” **e**